

Historic, Archive Document

Do not assume content reflects current
scientific knowledge, policies, or practices.

United States Department of Agriculture,

BUREAU OF PLANT INDUSTRY,

Forage-Crop Investigations,

WASHINGTON, D. C.

SUMAC SORGO (*Andropogon sorghum* var.).

On account of their ability to withstand drought, the sorghums have become the chief forage crop of the semiarid regions.

Sumac sorgo is one of the best known of the sweet sorghums and is essentially a fodder-producing crop. None of the sweet sorghums are valued for grain purposes because the yield is light and the seed contains much tannin. As a forage crop, however, they are superior to the kafirs, milos, and durras, not only because of the greater amount of sugar in the stems but also because the yield is greater. Sumac sorgo is usually considered one of the sweetest and leafiest of the group of saccharine sorghums and in the sections to which it is adapted it produces a very large yield of forage. It requires a long season for maturity, producing seed in 108 to 114 days. The stem of the plant is rather thick, of medium height, and is extremely leafy, bearing 14 to 16 leaves. The seed head is small, erect, compact, brownish red in color, and made up of rather small, round, dark-red seeds which are only partially inclosed by the short, dark-colored, round glumes. A considerable percentage of the seed becomes separated from the glumes in thrashing.

Sumac sorgo is well adapted to most of Texas and Oklahoma and to all of Arkansas, Louisiana, Mississippi, Tennessee, Alabama, Georgia, Florida, South Carolina, North Carolina, and Virginia. It will also do well in parts of New Mexico and Arizona, and is well suited to the southern parts of Kentucky, Missouri, and Kansas, and the central valley of California. It gives promise of replacing other varieties as far north as a line running through the middle of Kansas, Missouri, Illinois, Indiana, Ohio, and West Virginia.

In regions where it is commonly grown, sumac sorgo is used to a considerable extent for the production of sirup. Under favorable conditions yields of 6 to 10 tons of cured fodder per acre may be expected, especially where the season is sufficiently long to allow two cuttings. The fodder yield of sumac usually exceeds that of the common sorgos by about 2 tons per acre, and the quality is superior on account of the greater leafiness.

Planting.—Sorgo should be planted as soon after corn as the ground is thoroughly warm. Where the season is long it may be planted from this date to as late as will permit the crop to mature safely, but if two cuttings are desired a comparatively early planting is necessary. In the humid regions of the South where the sorghum midge is troublesome early planting is recommended. It may be planted either in a furrow with the lister or surface planted with an ordinary corn planter. The first method is advised in the arid regions. Sumac sorgo can be planted either in rows the same distance apart as Indian corn, 36 to 44 inches, sown broadcast, or drilled in with a grain seeder. Planting in rows is advised in the semiarid regions, as it gives a larger yield. Planted in cultivated rows, 4 to 6 pounds of seed per acre will be found ample. Sown broadcast or with a grain drill 1 to 1½ bushels of seed per acre usually give the best results, except in the very dry sections, where 2 to 3 pecks are better. Broadcast seedings should be thick enough to keep the stalks fine.

Harvesting.—Sumac sorgo should be harvested for forage purposes when in the late milk stage. Where a seed crop is desired cutting can be delayed until the seed is in the late dough stage without materially decreasing the feeding value of the fodder. In the humid regions the time of cutting can be regulated to some extent by weather conditions. When grown in cultivated rows it is most efficiently and economically harvested with a corn binder and put in shocks of 20 to 30 bundles each. The corn harvester is also serviceable if the crop is to be used for silage. When sown broadcast or in close drills it is often cut with a mower and cured like other hay crops. This method is undesirable because the sorghum is hard to cure and difficult to handle with a fork. A better method is to cut with an ordinary wheat binder and allow the bundles to cure in shocks.

Where a seed crop is desired, it can be cut late with a corn harvester and the bundles topped after they have cured in the shock. If the grower is intent on a seed crop alone, and does not care for the fodder, a quick method is to harvest the heads with a grain header adjusted so that the cutter bar will be placed at the proper height. Where this is done the remainder of the crop can be utilized by pasturing the field. Care must be used with seed headed in this way to prevent it heating when it goes through the "sweat."

Sumac sorgo cut with a corn harvester can be stored in the barn after it is thoroughly cured, or stacked in the open. Sorghum in bundles or as loose hay turns the water well, so that there is small loss from spoiling in the stack.

Feeding.—Sumac sorgo properly cured makes an excellent fodder or hay on account of its leafy character. All live stock eat it greedily, the large amount of sugar in the stems making it quite palatable. For silage purposes it is perhaps not quite equal to the kafirs and milos, because it does not have a like proportion of grain, and in addition the high sugar content makes it more liable to decay in the silo.

Sumac fodder or hay is the best roughage, and in many localities in the South practically the only one used. For milk cows and work horses 12 to 18 pounds per day of the fodder or hay, if supplemented by the ordinary amount of grain, are sufficient. Sorghum roughage will be much more effective in fat production if, in connection with it, a small amount of some concentrate high in fat, like cottonseed meal, is given the animal. Cattle and horses are often carried through the winter without the use of grain by feeding them liberally with sorghum fodder.

Suggestions.—Seed selection is not so important with sumac as with some other sorghums, since it is more uniform and does not cross as easily. But pure seed is always in demand and constant care in roguing the field which is intended for seed is necessary. The seed field should be planted apart from other sorghum fields, kept free from impurities, and the roguing done as soon as the head emerges from the boot, so that no pollen will be scattered.

Different rates of seeding designed to place the plants 2, 4, 6, and 8 inches apart in the row should be tried, and different dates of seeding may also be tested in each locality.

